

DISTRICT I

P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II

811 S. First St., Artesia, NM 88210-2835

DISTRICT III

1000 Rio Brazos Rd, Aztec, NM 87410-1693

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

2040 S. Pacheco
Santa Fe, New Mexico 875054-6429Form C-107-A
New 3-12-96

APPROVAL PROCESS:

☐ Administrative ☐ Hearing

EXISTING WELLBORE

☒ YES ☐ NO

APPLICATION FOR DOWNHOLE COMMINGLING

Operator Cross Timbers Operating Company Address 2700 Farmington Ave., Bldg. K. Ste 1 Farmington, NM 87401Lease Florance Well No. #70 Unit Ltr. - Sec - Twp - Rge J Sec 20 T27N R08W County San Juan, NMOGRID NO. 167067 Property Code 022608 API NO. 3004529718 Spacing Unit Lease Types: (check 1 or more)
Federal ☒ State ☐ (and/or) Fee ☐

The following facts are submitted in support of downhole commingling	Upper Zone	Intermediate Zone	Lower Zone
1. Name of the well	Basin Front and Coal /1629		Ballard Pictured Cliffs S.D. 71439
2. Top and Bottom of Pay Section (Perforations)	3,008' -3,150' MD		3,203' -3,235' MD
3. Type of production (Oil or Gas)	Gas		Gas
4. Method of Production (Flowing or Artificial Lift)	Flowing		Flowing
5. Bottomhole Pressure Oil Zones - Artificial Lift: Gas & Oil - Flowing: All Gas Zones: Estimated Current Measured Current Estimated Or Measured Original	a. (Current) b. (Original) 818 pisa (calc)	a. b.	a. b. 276 psia (meas)
6. Oil Gravity (^o API) or Gas BTU Content)	1066		1153
7. Producing or Shut-In?	SI		SI
Production Marginal? (yes or no)	yes		yes
* If Shut-In, give date and oil/gas/water rates of last production Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data	Date: n/a Rates: New zone	Date: Rates:	Date: n/a Rates: New zone
* If Producing, give date and oil/gas/water rates of recent test (within 60 days)	Date: Rates:	Date: Rates:	Date: Rates:
8. Fixed Percentage Allocation Formula -% for each zone	Oil: 0% Gas: 13%	Oil: % Gas: %	Oil: 100% Gas: 87%

9. If allocation formula is based upon something other than current or past production, or is based upon some other method, submit attachments with supporting data and/or explaining method and providing rate projections or other required data.

10. Are all working, overriding, and royalty interests identical in all commingled zones? ☒ Yes ☐ No
If not, have all working, overriding, and royalty interests been notified by certified mail? ☐ Yes ☐ No
Have all offset operators been given written notice of the proposed downhole commingling? ☒ Yes ☐ No11. Will cross-flow occur? ☒ Yes ☐ No If yes, are fluids compatible, will the formations not be damaged, will any cross-flowed production be recovered, and will the allocation formula be reliable. ☒ Yes ☐ No (If No, attach explanation)12. Are all produced fluids from all commingled zones compatible with each other? ☒ Yes ☐ No13. Will the value of production be decreased by commingling? ☐ Yes ☒ No (If Yes, attach explanation)14. If this well in on, or communitized with, state or federal lands, either the Commissioner of Public Lands or the United States Bureau of Land Management has been notified in writing of this application. ☒ Yes ☐ No

15. NMOC Reference Cases for Rule 303(D) Exceptions: ORDER NO(S) _____

16. ATTACHMENTS:

- * C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- * Production curve for each zone for at least one year. (If not available, attach explanation.)
- * For zones with no production history, estimated production rates and supporting data.
- * Data to support allocation method or formula.
- * Notification list of all offset operators.
- * Notification list of working, overriding, and royalty interests for uncommon interest cases.
- * Any additional statements, data, or documents required to support commingling.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Jeffery W. Patton TITLE Production Engineer DATE 1-25-99TYPE OR PRINT NAME Jeffery W. Patton TELEPHONE NO. (505) 324-1090

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
811 S. 1st Street, Artesia, NM 88210-2834
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-102
Revised October 18, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 3004529718	² Pool Code 71629 / 71439	³ Pool Name Basin Fruitland Coal / Ballard Pictured Cliffs
⁴ Property Code 022608	⁵ Property Name Florance	⁶ Well Number #70
⁷ OGRID No. 167067	⁸ Operator Name Cross Timbers Operating Company	⁹ Elevation 6777'

¹⁰ Surface Location									
UL or lot no. J	Section 20	Township 27N	Range 08W	Lot. Idn	Feet from the 2025	North/South Line South	Feet from the 2035	East/West line East	County San Juan, NM

¹¹ Bottom Hole Location If Different From Surface									
UL or lot no. P	Section 20	Township 27N	Range 08W	Lot. Idn	Feet from the 1188.9	North/South Line South	Feet from the 1008.7'	East/West line East	County San Juan, NM

¹² Dedicated Acres 320/160	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. Signature: <u>Jeffery W. Patton</u> Printed Name: <u>Jeffery W. Patton</u> Title: <u>Production Engineer</u> Date: <u>1-23-99</u>
	¹⁸ SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. <u>NOVEMBER 3, 1998</u> Date of Survey Signature and Seal of Professional Surveyer: <u>NEALE EDWARDS #6857</u> Certificate Number



Cross Timbers Operating Company

Re: Administrative Approval to Downhole Commingle
Cross Timbers Operating Co.
Florance #70
2,035 FEL, 2,025' FSL Sec. 20, T27N, R08W (surface)
San Juan County, New Mexico

Dear Offset Operator,

As an offset operator to the above mentioned well, you are hereby notified that Cross Timbers Operating Co is filing for downhole commingle approval.

If you do not have any objections to the above well being commingled, you can either sign this letter waiving your rights to an objection or let the twenty days, upon receipt of this letter, expire.

Please return this letter or a letter of objection to Mr. David Catanach at the address listed.

Mr. David Catanach
New Mexico Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

Cross Timbers Oil Co sincerely appreciate your prompt response concerning this approval.

M & G Drilling Company Inc.	Signature:
Amoco Production Company	Signature:
Burlington Resources Oil & Gas	Signature:
Robert L Bayless	Signature:



Cross Timbers Operating Company

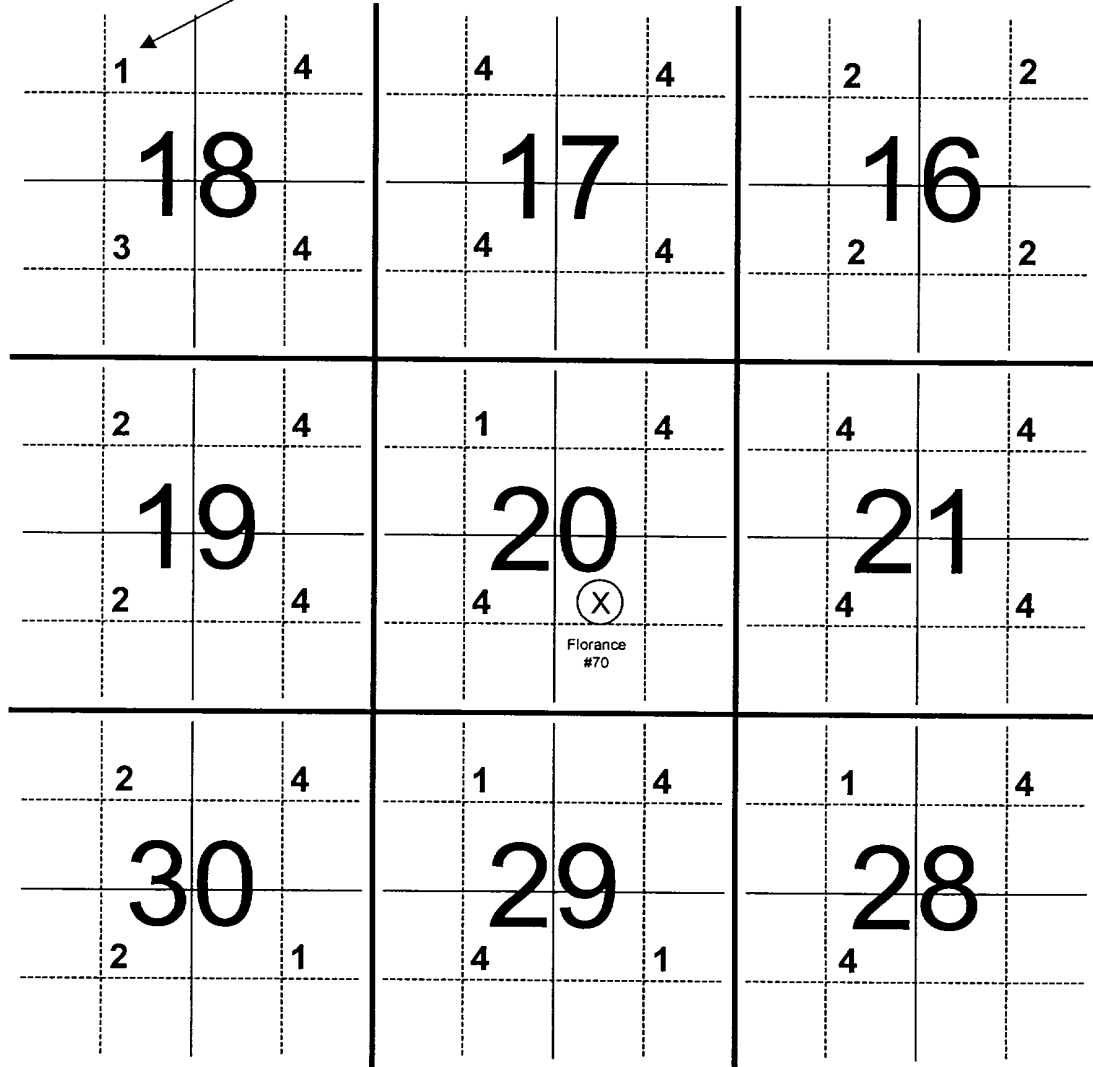
Florance #70
Offset Operator / Ownership Plat
South Blanco Pictured Cliffs / Basin Fruitland Coal
Downhole Commingle

Township 27 N, Range 08 W

1. Amoco Production Company
200 Amoco Court
Farmington, NM 87401
 2. Burlington Resources Oil & Gas Company
3535 E. 30th St.
Farmington, NM 87402
 3. Robert L. Bayless
368 Hwy 170
Farmington, NM 87401
 4. Cross Timbers Operating Co.
2700 Farmington Ave, Bldg K, Suite 1
Farmington, NM 87401
-



Offset Operator as indicated on previous page



Township 27 N, Range 08 W

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE*

(See other in-
structions on
reverse side)

FORM APPROVED

OMB NO. 1004-0137

Expires: February 28, 1995

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☒ DRY ☐ Other _____										5. LEASE DESIGNATION AND SERIAL NO. NM-03380	
b. TYPE OF COMPLETION: NEW WELL ☒ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RESVR ☐ Other _____										6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
2. NAME OF OPERATOR Cross Timbers Operating Company										7. UNIT AGREEMENT NAME	
3. ADDRESS AND TELEPHONE NO. 2700 Farmington Ave., Bldg. K. Ste 1 Farmington, NM 87401										8. FARM OR LEASE NAME, WELL NO. Florance #70	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)* At surface 2,025' FSL & 2,035' FEL Unit J At top prod. interval reported below 1,611' FSL & 1,516' FEL Unit J At total depth 1,188.9' FSL & 1,008.7" FEL Unit P										9. API WELL NO. 3004529718	
14. PERMIT NO. _____ DATE ISSUED _____										10. FIELD AND POOL, OR WILDCAT Basin Fruitland Coal	
15. DATE SPUDDED 11/15/98										11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec 20, T27N, R08W	
16. DATE T.D. REACHED 11/21/98										12. COUNTY OR PARISH San Juan	
17. DATE COMPL. (Ready to prod.) 1/11/99										13. STATE NM	
18. ELEVATIONS (DF, RKB, RT, GR, ETC.)* 6,777' GL										19. ELEV. CASINGHEAD	
20. TOTAL DEPTH, MD & TVD 3385' MD 2997 TV										21. PLUG, BACK T.D., MD & TVD 3318' MD 2940' TVD	
22. IF MULTIPLE COMPL., HOW MANY* 2										23. INTERVALS DRILLED BY →	
24. PRODUCING INTERVAL(S), OF THIS COMPLETION - TOP, BOTTOM, NAME (MD AND TVD)* Basin Fruitland Coal 3008'-3150' MD 2677'-2797' TVD										25. WAS DIRECTIONAL SURVEY MADE yes	
26. TYPE ELECTRIC AND OTHER LOGS RUN GR, CCL, SP, Litho Density, Compensated Neutron & Array Induction										27. WAS WELL CORED NO	
28. CASING RECORD (Report all strings set in well)											
CASING SIZE/GRADE		WEIGHT, LB./FT.		DEPTH SET (MD)		HOLE SIZE		TOP OF CEMENT, CEMENTING RECORD		AMOUNT PULLED	
8-5/8"		24#/ft		625' MD KB		12-1/4"		425 sx c1 B circ to surface			
4-1/2"		10.5#/ft		3383' MD KB		7-7/8"		365 sx Econolite & 200 sx C1			
								B. Circ to surf.			
29. LINER RECORD											
SIZE		TOP (MD)		BOTTOM (MD)		SACKS CEMENT*		SCREEN (MD)			
30. TUBING RECORD											
SIZE		DEPTH SET (MD)		PACKER SET (MD)							
2-3/8"		3,212' MD KB		n/a							
31. PERFORATION RECORD (Interval, size and number) 3150'-3140' 3138', 3133'-31', 3127'-24' 19 holes 3065', 3064', 3060'-3045', 3011'-3008' 21 holes All shots were 1 JSPF. 0.34" dia holes (40 ttl holes)											
32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.											
DEPTH INTERVAL (MD)						AMOUNT AND KIND OF MATERIAL USED					
3124'-3150'						500 gal Acid, 34000 gal foam frac					
3008'-3065'						500 gal Acid, 34000 gal foam frac					
						(200,000# 16/30 Arizona sd total)					
33.* PRODUCTION											
DATE FIRST PRODUCTION		PRODUCTION METHOD (Flowing, gas lift, pumping - size and type of pump) Flowing						WELL STATUS (Producing or shut-in) SI			
DATE OF TEST 1/13/99		HOURS TESTED 9.25 hrs		CHOKE SIZE 1/2"		PROD'N. FOR TEST PERIOD →		OIL - BBL. 0		GAS - MCF. 46	
FLOW. TUBING PRESS. 135 psig		CASING PRESSURE 315 psig		CALCULATED 24-HOUR RATE →		OIL - BBL. 0		GAS - MCF. 120		WATER - BBL. 49	
34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) To be sold										TEST WITNESSED BY Dusty Mecham	
35. LIST OF ATTACHMENTS											
36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records											
SIGNED _____				TITLE Production Engineer				DATE 1/18/99			

*(See Instructions and Spaces for Additional Data on Reverse Side)

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE*

(See other instructions on
reverse side)FORM APPROVED
OMB NO. 1004-0137
Expires: February 28, 19955. LEASE DESIGNATION AND SERIAL NO.
NM-03380

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME, WELL NO.
Florance #709. API WELL NO.
300452971810. FIELD AND POOL, OR WILDCAT
Ballard Pictured Cliffs11. SEC., T., R., M., OR BLK.
AND SURVEY OR AREA
Sec 20, T27N, R08W12. COUNTY OR
PARISH
San Juan13. STATE
NM1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☒ DRY ☐ Other _____
b. TYPE OF COMPLETION: NEW WELL ☒ WORK OVER ☐ DEEP-EN ☐ PLUG BACK ☐ DIFF. RESVR ☐ Other _____

2. NAME OF OPERATOR

Cross Timbers Operating Company

3. ADDRESS AND TELEPHONE NO.

2700 Farmington Ave., Bldg. K, Ste 1 Farmington, NM 87401

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*

At surface

2,025' FSL & 2,035' FEL Unit J

At top prod. interval reported below

1,293' FSL & 1,147' FEL Unit P

At total depth

1,188.9' FSL & 1,008.7' FEL Unit P

14. PERMIT NO.

DATE ISSUED

15. DATE SPUDDED
11/15/9816. DATE T.D. REACHED
11/21/9817. DATE COMPL. (Ready to prod.)
1/11/9918. ELEVATIONS (DF, RKB, RT, GR, ETC.)*
6,777' GL

19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD & TVD
3385' MD 2997 TV21. PLUG, BACK T.D., MD & TVD
3318' MD 2940' TVD22. IF MULTIPLE COMPL.,
HOW MANY* 223. INTERVALS
DRILLED BYROTARY TOOLS
0-3385' MD

CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION - TOP, BOTTOM, NAME (MD AND TVD)*

Ballard Pictured Cliffs 3203'-3235' MD 2842'-2869' TVD

25. WAS DIRECTIONAL
SURVEY MADE
yes

26. TYPE ELECTRIC AND OTHER LOGS RUN

GR, CCL, SP, Litho Density, Compensated Neutron & Array Induction

27. WAS WELL CORED
no

28. CASING RECORD (Report all strings set in well)

CASING SIZE/GRADE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
8-5/8"	24#/ft	625' MD KB	12-1/4"	425 sx cl B circ to surface	
4-1/2"	10.5#/ft	3383' MD KB	7-7/8"	365 sx Econolite & 200 sx Cl B. Circ to surf.	

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
					2-3/8"	3,212' MD KB	

30. TUBING RECORD

31. PERFORATION RECORD (Interval, size and number)

3235', 3234', 3233', 3229', 3223', 3221', 3215',
3209', 3206', 3203'. 1 JSPF, 0.34" dia, 10 holes

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
3203'-3235'	500 gal 15% HCl acid w/20 Balls.
	32500 gals 60Q foam w/60,000#
	16/30 Arizona sd.

33.* PRODUCTION

DATE FIRST PRODUCTION

PRODUCTION METHOD (Flowing, gas lift, pumping - size and type of pump)
FlowingWELL STATUS (Producing or
shut-in)
SI

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL - BBL.	GAS - MCF.	WATER - BBL.	GAS - OIL RATIO
12-22-98	22 hrs	3/4"		0	731	15	
FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL - BBL.	GAS - MCF.	WATER - BBL.	OIL GRAVITY - API (CORR.)	
55' psig	155 psig		0	797 MCFPD	16 bbls		

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)

To be sold

TEST WITNESSED BY
Dusty Mechem

35. LIST OF ATTACHMENTS

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED _____

TITLE Production Engineer

DATE 1/18/99

*(See Instructions and Spaces for Additional Data on Reverse Side)

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

FLORANCE #70

WELLBORE DIAGRAM

DATA

SURFACE LOCATION: 2.025' FSL & 2.035' FEL, UNIT J, SEC 20, T27N, R08W
BOTTOMHOLE LOCATION: 1,200' FSL & 1,000' FEL, UNIT P, SEC 20, T27N, R08W
COUNTY/STATE: SAN JUAN, NEW MEXICO
FIELD: BASIN FRUITLAND COAL & BALLARD PICTURED CLIFFS
FORMATION: FRUITLAND COAL / PICTURED CLIFFS
NM LEASE#: NM-3880 API#: 30045XXXXX CTOW WELL#: FC: XXXXX PC: XXXXX
SPUD DATE: 11/16/98 COMPLETION DATE: 12/20/98

IP:

PRODUCTION METHOD: DK: FLWG GAS WELL GA: ROD PMP WELL.

TUBING STRING:

PERFS: PICTURED CLIFFS FRUITLAND COAL

HISTORY

11/16/98 CTOW SPUNNED WELL W/KEY ENERGY RIG 44. DRLG 12-1/4" HOLE. KB: 6,791'. GL: 6,777'.
11/17/98 REACHED TD OF SURFACE PIPE HOLE @ 628' KB (MD & TVD). SET 8-5/8", 24.0#, J-55,
ST&C CSG @ 624' KB. CMT'D W/425 SX CLASS "B" W/2% CACL2 & 1/4 PPS CELLOFLAKE.

CIRC 20 BBLs CMT TO SURF.

11/18/98 KO @ 660' DRLG 7-7/8" DEVIATED HOLE USING BAKER INTEQ MWD.

11/21/98 REACHED TD OF 7-7/8" DEVIATED HOLE @ 3,385' KB MD (DRILLERS). 2,997' KB TVD.

ANGLE 32°. VERT SECT 1,324.02'. DIRECTION 128.4° ESE. COORDINATES -836', 1,026'.

RAN PHASOR INDUCTION, LITHO-DENSITY & COMPENSATED NEUTRON OH LOGS.

SET 4-1/2", 10.5#, J-55, STC CSG @ 3,383' KB MD. CMT'D W/365 SX CLASS "B" CMT W/3% D79 (SMS) & 1/4 PPS CELLOFLAKE FOLLOWED BY 200SX CLASS "B" CMT W/2% CACL2 & 1/4

PPS CELLOFLAKE. CIRC 40 BBLs CMT TO SURFACE..

11/22/98 RDMO KEY ENERGY RIG 44.

KB: 6,791'
GL: 6,777'
CORR: 14'

12-1/4" HOLE

8-5/8" 24# K-55 STC CSG @ 624'. CMT'D
W/425 SX CLASS "B" CMT W/2% CACL2
& 1/4 PPS CELLOFLAKE. CIRC 20 BBLs
CMT TO SURF.

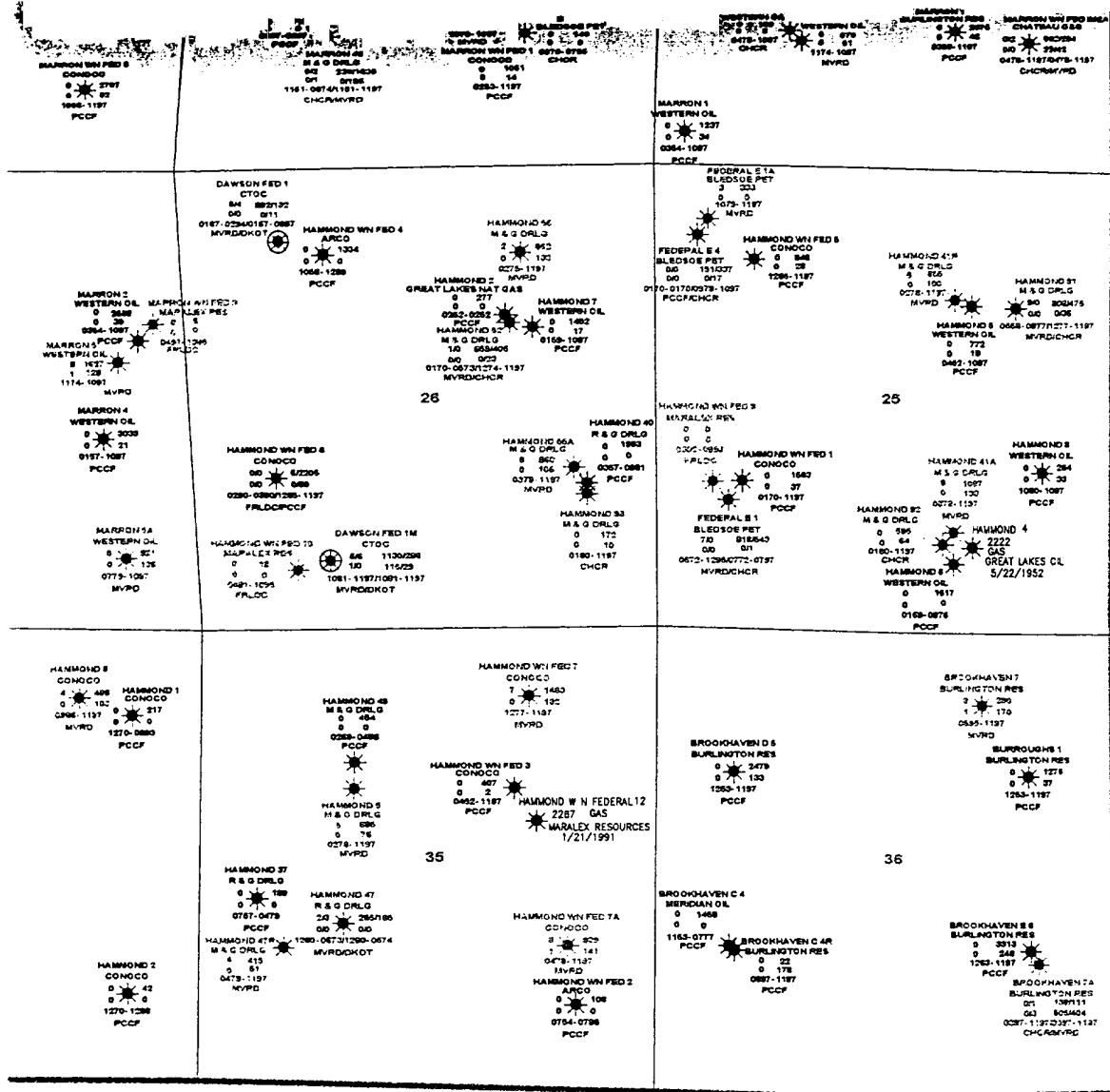
KOP @ 660'

7-7/8" HOLE

32°

SET 4-1/2", 10.5#, J-55, STC CSG @ 3,383' KB
MD. CMT'D W/365 SX CLASS "B" W/3% D79
(SMS) & 1/4 PPS CELLOFLAKE FOLLOWED BY
200 SX CLASS "B" W/2% CACL2 & 1/4 PPS
CELLOFLAKE. CIRC 40 BBLs CMT TO SURF.

TD 3,385' KB MD (DRILLERS)
TD 2,997' KB TVD (DRILLERS)
TD 3,390' KB MD (LOGGERS)



CROSS TIMBERS OIL COMPANY

SAN JUAN BASIN WELLBORE REVIEW CUM PROD MAP T27N R08W

Linda Weiss

7/24/98

Scale 1:24000.

1" = 2000'

